

AMENDMENTS TO THE CLAIMS

The following represents the complete listing of the claims in this application in the present state including any amendments sought to be entered at this time. All claims that have been canceled have been canceled without prejudice or disclaimer of any subject matter therein. Cancel claims 52-53, 57, 62 and 63.

Listing of the Claims

1-50(canceled).

51(currently amended). A container handling system as in claim ~~63~~ 65 wherein said hydraulic rotary actuator has a double-ended output shaft and wherein said mechanized pivoting arm arrangement includes a pair of spaced parallel arms, each having a one-piece curved structure, one attached to and operated by each end of said double-ended output shaft.

52(currently amended). A container handling system as in claim ~~63~~ 65 wherein said control system includes a speed controller for controlling the pivoting speed of said mechanized pivoting arm arrangement based on sensed angular arm position.

53(previously presented). A container handling system as in claim 51 wherein said control system includes a speed controller for controlling the pivoting speed of said mechanized pivoting arm arrangement based on sensed angular arm position.

54(canceled).

55(currently amended). A container handling system as in claim ~~63~~ 65 wherein said arm position sensing system for sensing the angular position of said at least one arm includes an angular displacement transducer attached to sense the rotational position of said hydraulic rotary actuator.

56(previously presented). A container handling system as in claim 51 wherein said arm position sensing system for sensing the angular position of said at least one arm includes an angular displacement transducer attached to sense the rotational position of said hydraulic rotary actuator.

57(previously presented). A container handling system as in claim 52 wherein said arm position sensing system for sensing the angular position of said at least one arm includes an angular displacement transducer attached to sense the rotational position of said hydraulic rotary actuator.

58(canceled).

59(previously presented). A container handling system as in claim 64 wherein said hydraulic linear actuator is a hydraulic cylinder, said system further comprising control means for damping the action of said hydraulic cylinder toward the extremes of travel thereof.

60(currently amended). A container handling system as in claim ~~63~~ 65 wherein said ~~extensible~~ telescoping boom is mounted on a side loading refuse vehicle so as to enable the emptying of

containers into a charging hopper of said vehicle.

61(currently amended). A container handling system as in claim 56 wherein said ~~extensible~~ telescoping boom is mounted on a side loading refuse vehicle so as to enable the emptying of containers into a charging hopper of said vehicle.

62(previously presented). A container handling system as in claim 57 wherein said extensible boom is mounted on a side loading refuse vehicle so as to enable the emptying of containers into a charging hopper of said vehicle.

63(canceled).

64(currently amended). A mechanized container handling system for mounting on a refuse vehicle comprising:

- (a) ~~an extensible~~ a telescoping boom adapted to be mounted on a refuse vehicle and selectively operable to move laterally therefrom for any selected distance between a fully extended and a fully retracted position ~~so as to provide variable lateral, generally horizontal range with respect to a refuse vehicle for accessing and discharging containers of interest;~~
- (b) a pivotally mounted mechanized arm arrangement carried by said extensible boom and having a free end the pivoting of which describes a lift-and-dump radius, said arm arrangement including at least one arm of one-piece curved construction, and including a double

acting reversible hydraulic linear actuator, wherein said curved construction of said at least one arm reduces said lift-and-dump radius and wherein said at least one arm is connected to rotate on a mounting shaft carried by said extensible boom, and wherein pivotal operation of said at least one arm through a major arc enables a complete lift and dumping operation;

- (c) a separately operated container grabber device for grabbing and releasing containers of interest, said grabber device being carried by the free end of said at least one arm in an offset arrangement;
- (d) a boom position sensing system for sensing the relative extension of said boom;
- (e) an arm position sensing system for sensing the angular position of said at least one arm based on the rotational position of said mounting shaft;
- (f) actuators for extending and retracting said boom and operating said container grabber device; and
- (g) a control system for controlling the operation of said container handling system

65(new). A mechanized container handling system for mounting on a refuse vehicle comprising:

- (a) a telescoping boom adapted to be mounted on a refuse

vehicle and selectively operable to move laterally from a side thereof;

- (b) a mechanized arm arrangement including a reversible hydraulic rotary actuator carried by said telescoping boom and having an output shaft, an arm having a one-piece structure curved to reduce a lift-and-dump radius described by the pivoting thereof, said arm being fixed to and rotated by said output shaft of said rotary actuator, wherein pivotal operation of said one-piece arm through a major arc enables a complete lift and dump operation;
- (c) a separately operated container grabber device for grabbing and releasing containers of interest, said grabber device being carried by the free end of said at least one arm in an offset mounting arrangement;
- (d) a boom position sensing system for sensing the relative lateral extension of said boom;
- (e) an arm position sensing system for monitoring rotational position of said at least one arm based on a sensed rotational position of said hydraulic rotary actuator;
- (f) actuators for extending and retracting said boom and operating said container grabber device; and

(g) a control system for controlling the operation of said container handling system, wherein said control system includes a speed controller for controlling the pivoting speed of said mechanized pivoting arm arrangement.

66(new). A container handling system as in claim 65 further comprising mechanical stops associated with the extremes of the rotational position of said one or more one-piece curved arms.